June 29, 2015

Ms. Jacqueline C. Charlesworth General Counsel and Associate Register of Copyrights United States Copyright Office 101 Independence Ave. S.E. Washington, D.C. 20559-6000

Re: Docket No. 2014-7

Exemptions to Prohibition Against Circumvention of Technological Measures Protecting Copyrighted Works

June 3, 2015 Questions Posed to Class 3 Witnesses

Dear Ms. Charlesworth,

Thank you for this opportunity to say more about the challenges of satisfying the requirements of the TEACH Act (17 U.S.C. § 110(2), hereinafter "TEACH") for most providers of platforms and course content for massive open online courses (MOOCs).

In response to your first question, regarding the types of TPMs that could be used to comply with TEACH, the answer at this time is that we are not sure which measures, if any, would satisfy the statute's requirements. As we noted during the hearing, TEACH has not been widely used, much less litigated, since its passage, so we are not aware of any standard or authoritative interpretations of its TPM requirements. The relevant statutory text requires use of TPMs that "reasonably prevent . . . retention . . . and . . . unauthorized further dissemination" of works (or portions of works) used in the digital context pursuant to the exemption. Arguably, the use of any streaming technology, as distinct from providing course material as a downloadable file, could satisfy each of these requirements: an unsophisticated user who interacts with a streamed file as intended will neither retain nor (perforce) further disseminate it.²

However, another key question would be whether streaming "reasonably prevents" the targeted behaviors given that a savvy user can always convert a stream into a retained copy. The same question will recur with any TPM, as users with sufficient technical know-how will always be capable of circumvention. Without guidance from courts or standard practices to help show which TPMs are widely used or seen as "reasonably preventing" the relevant behaviors in this context, we cannot answer the question with certainty.

A related question about this portion of TEACH is whether the next part of the statute, 17 U.S.C. § 110(2)(D)(ii)(II), would create a per se bar to the use of material obtained by means of circumvention. The statute requires that users "not engage in conduct that could reasonably be

¹ Indeed, a Congressional Research Service report on TEACH suggests, citing a contemporaneous Copyright Office report, that the TPMs described in TEACH "were being developed... [but] were not yet in widespread use" at the time the bill was passed. Jared Huber, et al., *Copyright Exemptions for Distance Education: 17 U.S.C. § 110(2), the Technology, Education, and Copyright Harmonization Act of 2002* 4 (2006) available at http://assets.opencrs.com/rpts/RL33516 20060706.pdf.

² But see Huber, et al., supra n. 1 at 8 (describing "inhibitors that prevent the copying of streamed material" as appropriate TPMs, which implies that streaming absent such inhibitors would not satisfy the statute's TPM requirement).

expected to interfere with technological measures used by copyright owners to prevent such retention or unauthorized further dissemination." TPMs that prevent copying of works stored on DVD, Blu-ray disc, and especially streaming media, may all constitute measures with which this portion of TEACH forbids interfering. This is uncharted territory, and some assurance from the Copyright Office that an exemption granted pursuant to Section 1201 would also be effective against TEACH's built-in anti-circumvention provision may be necessary in order to make any exemption limited to TEACH-compliant uses viable.

As to your second question, regarding the current practices of MOOC platforms with regard to TPMs, we were able to talk with people familiar with the practices of Coursera, EdX, FutureLearn,³ and the Canvas Network,⁴ and they told us that TPMs of the kind required by TEACH would be an unwelcome and unnatural fit for most MOOC providers. Some, like Coursera, cited the cost and complexity of most TPM/DRM systems. Coursera told us that "Investigations by the engineering team...found that [implementing TPMs] is actually incredibly intensive, and beyond the means of our company at this time." They also mentioned that their learners value a downloadable option for course videos.

Downloads have several advantages over streams. Ideally, MOOC providers would like to provide "ubiquitous mobile access" to course content, which "requires the material to be continually available, easily paused and restarted, which in practice often means downloading of the video content for offline access." Downloads can be useful to participants with sporadic Internet access. Downloads are useful to participants whose best opportunities for watching course content are in contexts where connectivity is sparse or unavailable, such as during daily commutes on public transit, or on devices without a cellular Internet connection, such as iPods or iPads. Downloads over wifi also spare the use of scarce or expensive cellular data. Most importantly, downloads are essential to participants with generally poor connectivity or low bandwidth, which includes much of the developing world.

Indeed, one of the signature aspirations of the MOOC paradigm is much greater openness and accessibility compared to previous forms of education. All MOOC platforms, even the for-profit ones, see dramatically expanding access to education as part of their core mission. Any technical requirement beyond the barest connectivity and most basic hardware would put MOOCs out of reach for much of the developing world, undermining that mission. Coursera told us that roughly ½ of the video traffic to emerging countries was via download, compared to roughly 1/3 for

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³ In addition to providing the option to make videos downloadable, FutureLearn allows instructors to choose whether access to course videos is limited to enrolled students or open to anyone on the web. The latter practice would disqualify the course from TEACH protection per 17 U.S.C. § 110(2)(C)(i), which requires access to be limited to enrolled students "to the extent technologically feasible…."

⁴ Udacity did not wish to comment, but said they would be willing to respond to a formal Copyright Office inquiry made directly to them.

⁵ Email on file with the authors. FutureLearn said, similarly, that "Our expectation is that implementing [TPMs] would involve considerable work… would be costly…[and] less reliable for our learners." Email on file with authors. ⁶ Mike Sharples, Carlos Delgado Kloos, Yannis Dimitriadis, Serge Garlatti, Marcus Specht, *Mobile and Accessible Learning for MOOCs*, J. Interactive Media in Educ., http://jime.open.ac.uk/article/10.5334/jime.ai/ (2015). *See also*, Jeffrey Pomerantz, *Data About the Metadata MOOC*, *Part 2: Video Viewership*, Jeffrey Pomerantz, http://jeffrey.pomerantz.name/2013/11/data-about-the-metadata-mooc-part-2/ (2013)("being able to download videos to watch later is likely to be an important feature for those students [who live in developing countries]").

developed countries.⁷ Relatedly, MOOC providers generally do not object to downloading or long-term retention of their course content, so they have no reason to implement TPMs in the ordinary course of their business. Since allowing downloads arguably entails allowing "retention" of the video for "longer than a class session," TEACH's TPM requirement would likely bar an important modality of MOOC course content delivery.

Of course, some of this depends on what "class session" means in a context where multiple, asynchronous viewings of each video is the norm, and where there is no set, live class meeting time. In courses where lecture videos are recorded and viewed asynchronously but interactive Q&A sessions are live, it may not even be clear which part of the class is the "class session" and which is homework or outside reading, if there is a meaningful distinction to be made between the two. A sufficiently broad interpretation of "class session" might cover downloads, but it might also defeat the purpose of the statutory provision, whatever that purpose may have been. Again, we simply are not sure how the dated terminology of TEACH maps onto MOOC teaching. Trying to apply TEACH to MOOCs might be like trying to apply a coachwhip to a convertible.

This brings us to another problem with TEACH: the requirement at Section 110(2)(A) that materials be used as an "integral part of a class session." It is unclear whether this language rules out the MOOC equivalent of a common media studies assignment which is sometimes given in class, sometimes as homework: providing students with a carefully chosen set of clips to analyze or evaluate. It is of course essential to the exercise that the instructor does not aid the analysis, although the clips are carefully chosen by her to probe specific concepts and skills. Is this type of teaching activity "integral" to a "class session"? Analysts have said TEACH is meant to apply to materials analogous to in-class activities, but not materials that would ordinarily be purchased by students for outside use. ⁹ This clip analysis activity may defy categorization.

More generally, MOOCs typically consist of a combination of short lecture videos and short post-lecture quizzes and activities to gauge comprehension. The latter activities can include multimedia elements. Is a post-lecture self-assessment activity an "integral part" of the "class session" for TEACH purposes? Or must a work be literally incorporated into one of the lecture videos in order to be "integral" to a class session, as distinct (one assumes) from (the MOOC equivalent of) homework, assigned reading, or supplemental material? Again, this way of trying to divide up the pedagogical universe may seem intuitive at first, and perhaps seemed so at the time TEACH was passed, ¹⁰ but these concepts evade clear definition once they are examined

⁷ Email on file with authors.

⁸ Kenneth Crews proposes a reasonable reading of the problematic term "class session" and the requirement that materials not be retained outside of such a session: "In general, it means that the student who properly accesses the materials will not maintain accessible copies after logging off the account. The student may return to the materials repeatedly during the course, but not be able to have them backed up or stored in accessible form outside of the course context." Kenneth W. Crews, Copyright Law and Distance Education: Overview of the Teach Act 2 (2010). This interpretation allows for asynchronous and repeated viewings, but would certainly bar downloading.

⁹ See, e.g., Huber et al., *supra* n. 2 at 6.

¹⁰ Crews writes that TEACH is "built around a vision that distance education should occur in discrete installments, each within a confined span of time, and with all elements integrated into a cohesive lecture-like package." Crews, *supra* note 7 at 2.

more closely, especially as basic teaching concepts are being reimagined, disaggregated, and "flipped."

Finally, it bears reiterating that TEACH only protects "governmental bod[ies] or...accredited nonprofit educational institution[s]." As we have said at the hearings and in other filings, leading MOOC platforms Coursera and Udacity are for-profit entities. Some of the institutions who serve course content on MOOC platforms would also be excluded from TEACH because they are for-profit, not accredited, not "educational," or none of the above. National Geographic, the World Bank, and UNICEF all offer courses on Coursera and would likely be excluded from coverage by TEACH.

It is also unclear how TEACH would apply to collaborations between covered institutions and excluded platforms (the University of Pennsylvania and Coursera, for example) or excluded institutions and covered platforms (National Geographic and EdX, for example). Arguably, MOOC platforms are mere service providers and the institutions whose staffs develop the course content are the intended beneficiaries (or not) for TEACH purposes, so the for-profit status of the platform would be irrelevant. No one thinks that a professor loses her rights under 17 U.S.C. § 110(1) merely because she uses a monitor or a projector that were developed and sold to the school by a commercial business. The issue has not been litigated, however, so we cannot know for sure what a court would do in a case where both a university and a for-profit MOOC platform were sued for alleged infringement.

What can be done about the uncertainty and doubt surrounding key provisions of TEACH? For years universities and libraries have relied on fair use as a backstop. While they may have hoped that TEACH would permit important uses, ¹¹ they have also been fairly secure that in the unlikely event an institution or a teacher were sued and found to have misread or misunderstood some technical aspect of TEACH, a court would still be able to revert to the broad, equitable fair use doctrine to permit legitimate teaching uses. The Senate Judiciary Committee and the Copyright Office both affirmed at the time of its passage that TEACH was meant to work in tandem with fair use to facilitate distance education. ¹² An exemption to allow circumvention for MOOC teaching should likewise allow for use of both parts of the Act, otherwise it may be of little use to its intended beneficiaries.

Thank you, again, for this opportunity to share our views, and please do not hesitate to reach out to us if you have any further questions.

under the terms of the TEACH Act. Further, the TEACH Act may allow the desired uses, but the educational institution might not meet the policy or technology requirements.")

12 See S.Rept. 107-31, 107th Cong., 1st Sess. 15 ("Fair use is a critical part of the distance education landscape. Not

¹¹ But see Crews, supra note 7 at 7 ("Because of the numerous conditions, and the limitations on permitted activities, many uses of copyrighted works that may be desirable or essential for distance education may simply be barred

only instructional performances and displays, but also other educational materials or student downloading of course materials, will continue to be subject to the fair use doctrine. Fair use [applies] as well to instructional transmissions not covered by [TEACH].") citing U.S. COPYRIGHT OFFICE, REPORT ON COPYRIGHT AND DIGITAL DISTANCE EDUCATION 161-62 (May 1999), available online at http://www.copyright.gov/reports/de_rprt.pdf.

Best regards,

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